REMARKS

The Applicants appreciate the Examiner's thorough examination of the subject application. Applicants request reconsideration of the subject application based on the instant amendments and the following remarks.

Claims 1-10 are pending in the instant application. Claims 1 and 8-10 have been amended. The abstract of the invention has been amended as suggested by the Examiner. Support for the amendments to the claims can be found throughout the specification and drawings. No new matter has been introduced into the application by the instant amendments to the claims, specification or abstract.

Claims 1 and 9 were objected to because of various informalities.

The claims, as amended, address the minor spelling and punctuation errors raised in paragraph 3 of the Office Action.

Claims 1, 4 and 5 were rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement.

The rejection is traversed.

The terms flatness, surface waviness, and sink mark depth are terms which are well known in the art.

The specification provides at pages 27, line 6 to page 28, line 27 a definition of each of these terms and preferred means of measuring each property. Attached in Appendix A is a pictorial representation of the surface morphological properties represented by each of surface flatness, surface waviness, and sink mark depth as described in the specification.

Flatness is a measurement of the deformation of the three dimensional structure of the resin container. Flatness measurements are calculated by measuring the height of various points of the flat surface, e.g., at various points which are within 2 mm of the outer periphery of the flat portion (1A). The flatness is then calculated by a least square analysis of the difference in the measured heights about the periphery of the flat region of the container.

Surface waviness is a measure of the variation of the tested portion of a surface from an idealized surface plane. As provided by the specification, measurements of surface waviness are obtained using a surface roughness tester over a 30 mm sample of the flat region of the container (if, however the flat region has a maximum dimension of less than 30 mm, then the surface waviness is measured using the maximum dimension).

Sink marks are localized defects in the surface of the surface which are measured by determining the As indicated in the figures of appendix according to the procedure disclosed in JIS B 0601-2001.

Claims 1 (as amended), 4, and 5, are fully compliant with the requirements of 35 U.S.C. §112, including the written description requirements of §112, first paragraph.

Claims 8 and 10 were rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 10 were rejected under 35 U.S.C. §101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process.

Claims 8 and 10, as amended, provide a process of making the resin container and particularly point out and distinctly claim at least one process step in each claim. Thus, the rejections under §101 and §112, second paragraph, have been obviated.

Claims 1-10 were rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Bird in view of Sylvester.

The rejection is traversed.

A brief discussion of the present invention may be beneficial to the Examiner's consideration of the application and instant amendments.

The present invention provides resin containers produced by injection molding an amorphous thermoplastic resin into a mold. The resin containers comprise a lid and a container body, which body has a wall thickness as thin as no more than 0.25 mm and an excellent flatness. More particularly, the resin container is a thin walled container which is suitable for use as an outer shell for housing electric parts. The present invention further provides methods of making said injection molded resin containers.

The container body of the resin container is produced by injection-molding an amorphous thermoplastic resin into a mold to form a body comprising a peripheral rise portion and a recessed flat portion defined by the peripheral rise portion, said peripheral rise portion having a height of 0.5 to 10 mm, and said recessed flat portion having an area of 1 to 100 cm^2, an average wall thickness of not more than 0.25 mm and a flatness of not more than 0.5 mm.

The use of an amorphous resin as a material for injection molding has been limited by the reduced flowability of the amorphous resin relative to crystalline resins. In general, injecton-molded products prepared by injection molding an amorphous resin resulted in products that

were prone to distortion (i.e., poor flatness) or had thicker walls.

Applicants have surprisingly a method to produce a resin container by injection molding an amorphous thermoplastic resin to form a container having thin walls (i.e., small wall thickness) and superior flatness. Applicants have discovered that the resin containers of the invention can be sealed by welding without inclusion of a gas between the body and lid due to the thin wall thickness and superior flatness of the flat portion of the container body. The resin containers of the instant invention provide greater internal volume for contents included in the container compared to other resin containers.

The claimed invention would not have been obvious from any combination of the cited art.

Bird neither teaches nor suggests injection-molding a resin to form a container body. More particularly, Bird neither teaches nor suggests (1) the use of an *amorphous* thermoplastic resin as a material in forming a container, or (2) using injection-molding to form the resin container.

As the reference is understood, Bird recites at column 12, lines 44-58 the formation of carrier tapes prepared by shaping pockets **into a sheet of polymeric material**. Thus, in one method of making carrier tapes, a ***flexible*** thermoplastic polymer is first formed into a sheet and then secondly thermoformed to introduce pockets into the sheet. Bird teaches that the sheet can be obtained by (1) providing a preformed role or sheet, by direct extrusion, or by continuous injection molding. After providing the flexible thermoplastic polymer sheet, the sheet is then thermoformed in a mold or die to introduce the pockets. See, FIG. 5 of Bird, in which a preformed sheet 200 is pre-heated by a heating element 202 and then **thermoformed** by a mold or die 204.

Injection molding is a method of making articles which is completely different from thermoforming such that one of ordinary skill in the art can readily distinguish between articles prepared by injection molding and those prepared by thermoforming.

Thus, Bird does not teach resin containers having a container body composed of an injection molded amorphous thermoplastic resin.

Sylvester fails to overcome the limitations of Bird. That is, Sylvester neither teaches nor suggests resin containers formed by injection molding an amorphous thermoplastic resin.

As the office action is understood, Sylvester is relied upon for the purpose of showing side wall height, flatness, surface area and thickness of the bottom wall. However, Sylvester neither teaches nor suggests injection molded resin containers composed of an amorphous thermoplastic resin. Thus, Sylvester fails to overcome the limitations of Bird.

No combination of Bird and Sylvester teach or suggest resin containers comprising a lid and an injection molded container body composed of an amorphous thermoplastic resin. Moreover, no combination of Bird and Sylvester teach or suggest the methods of making the resin containers of the present invention.

Even if the references are combined, Sylvester fails to provide teach or suggest the flatness and surface waviness parameters for a thermoplastic resin container recited in the claimed invention. As the Sylvester reference is understood, laminate structures are provided having two metallic layers. Moreover, Sylvester teaches that the flatness of the recited laminates are measured using standard techniques (See, column 2, lines 47-50 of Sylvester). However, the method for measuring flatness in a metal laminate are completely different from the measurement techniques used for thermoplastic resins. Thus, the flatness measurements of Sylvester are not relevant to determining the flatness of a thermoplastic resin surface.

For at least the reasons discussed *supra*, one of ordinary skill in the art would not have been motivated to prepare the resin containers provided by the instantly claimed invention. Thus, withdrawal of the §103(a) rejection and reconsideration of the claims is requested.

Early consideration of the application and claims as amended is earnestly solicited.

Although it is not believed that any additional fees are needed to consider this submission, the Examiner is hereby authorized to charge our deposit account no. 04-1105 should any fee be deemed necessary.

Respectfully submitted,

July 26, 2005

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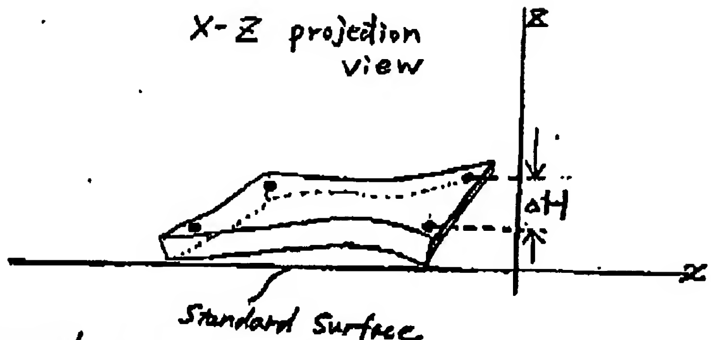
Appendix A

Explanation views of Flatness, Surface Waviness and Sink Mark Depth

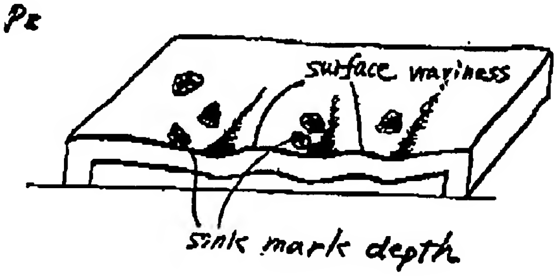
Explanation Views

1) Flatness



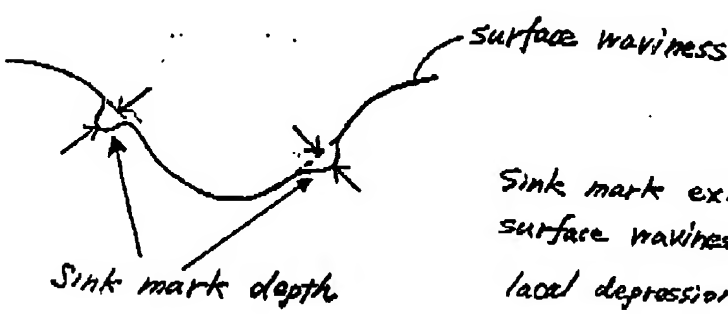
• : measured region
which is apart from less than 2mm from outer periphery

2) Surface wavIness P_z



Surface waviness is a visual wave.
In a surface roughness chart, it is a large wave form.

3) Sink mark depth



Sink mark exists in surface waviness and is local depression.